National Space Science Symposium PS3: Breakout sessions

Breakout Session 1: 23rd February 2026

The heliosphere spans an immense spatial domain, permeated by the solar wind, energetic particles, radiation, and magnetic fields. A single-point measurement within this vast and dynamic system is analogous to reconstructing the proverbial three-dimensional elephant by touching just one small part of its surface. Such limited sampling cannot adequately capture the complexity of heliospheric processes.

It is therefore unsurprising that multi-point measurements, complemented by robust modelling efforts, are essential for advancing our understanding of heliospheric physics. However, since it is neither practical nor feasible to populate the heliosphere with an unlimited number of spacecrafts, careful and strategic choices must be made. These include prioritizing key science questions, determining the optimal number and configuration of satellites, selecting appropriate orbital locations, and defining the necessary instruments to be carried as payloads.

There is an urgent need to thoughtfully prioritize these elements in a coordinated manner. This breakout session aims to foster convergence on these critical aspects and chart the next frontiers of heliospheric physics research in the country.

Join us for an hour at the breakout session on 23rd Feb 17:30-18:30 hrs in Room No: xx

Breakout Session 2: 24th February 2026

Destination Moon

Been there done that! But wait, the story is just beginning. The Indian space program is studying ambitious missions to the Moon with a goal of Indians on the Moon in the next decade.
What should be the objectives of our future lunar missions? What experiments would you want to do there? We are eager to know YOUR views.

Join us for an hour on 24th Feb 17:30 to 18:30 Hrs in Room No: xy and be part of this visionary venture.

Breakout Session 3: 25th February 2026

Fragmented: Big science from small bodies

Asteroids come in all sizes. From tiny boulders to massive bodies hundreds of kilometres in diameter, there are over a million such objects in just the main belt in our Solar System. Asteroids are relics that can unveil crucial information on early Solar System processes and also could be targets for mining in future.

If we were to plan an Indian mission to asteroids, what should be our targets? Main belt, NEA or more ambitiously the centaurs and the Trojans or shall we chase Apophis that will fly past our planet in 2029?

Join us for an hour at the breakout session on 25 Feb 17:30 to 18: 30 Hrs in Room No: xz

Breakout Session 4: 26th February 2026

Mission Mars: Land & Roam

India's Mangalyaan mission successfully orbited Mars, and now we stand on the brink of an exciting new phase: landing on the Martian surface for in-situ exploration. This pivotal Mars landing mission will undoubtedly present formidable challenges, but it also holds the promise of ground-breaking technological and scientific advancements that could redefine our understanding of the Red Planet.

We invite you to ponder vital questions: Where should we land on Mars? How will we navigate and explore the diverse Martian terrain? What scientifically compelling sites should we prioritize?

Join us for Breakout Session 4 on 26 Feb, 17:30 to 18:30 Hrs in Room No. [##]. Your insights and ideas could help shape the future of Martian exploration!